

Attorney Docket No. 033449-500-C1

module 100 may be stacked on a lower module (not shown), and an upper module (not shown) may in turn be stacked upon the module.

While the method and apparatus disclosed herein constitute preferred embodiments of the invention, the invention is not limited to these precise methods and apparatuses, and other methods and apparatuses may be used without departing from the scope of the invention.

What is claimed is:

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Sub 1 A method for transporting vehicles comprising the steps of:
C1 providing a module shaped and sized to receive vehicles therein;
providing a trailer chassis coupled to a tractor, said tractor and said trailer chassis being located on or adjacent to an external surface;
5 locating said module on a trailer chassis; and
driving said vehicles from said external surface into said module.

2. The method of claim 1 wherein said module is shaped and sized to receive a single layer of vehicles therein.

3. The method of claim 1 wherein said module is shaped to be contiguously stacked upon other modules.

4. The method of claim 1 wherein said trailer chassis includes a bed and at least one set of wheels, and is detachably coupled to said tractor.

5. The method of claim 4 wherein said module is detachably coupled to said trailer chassis, and wherein the method further comprises the step of driving said tractor to a desired location to transport said vehicles located inside said module to said desired location.

6. The method of claim 5 further comprising the step of uncoupling said module from said trailer chassis and placing said module onto a carrier to further transport said vehicles located inside said module.

7. The method of claim 6 wherein said module is stacked on at least one lower module located on said carrier, and wherein at least one upper module is stacked upon said module.

8. The method of claim 5 further comprising the step of driving said vehicles from said module to an external surface at said desired location.

9. The module of claim 8 wherein said vehicles are driven forwardly in both said driving steps.

10. The method of claim 1 further comprising the step of, after said locating step, coupling a ^(11.4)ramp to one of said module or said trailer chassis and wherein said vehicles are driven over said ramp during said driving step.

11. The method of claim 10 further comprising the steps of uncoupling said ramp from said one of said module or said trailer chassis and storing said ramp on said trailer chassis.

12. The method of claim 1 further comprising the step of, before said driving ⁹said step, pivoting said trailer chassis such that a loading side of said module is located closer to said external surface.

13. The method of claim 12 wherein said pivoting step includes activating a hydraulic fifth wheel to cause said pivoting of said trailer chassis.

14. The method of claim 12 wherein said tractor includes a hydraulic fifth wheel, and wherein said hydraulic fifth wheel is used to pivot said trailer chassis.

15. The method of claim 12 wherein said trailer chassis includes at least one set of wheels, and wherein said trailer chassis is pivoted about said set of wheel during said pivoting step.

16. The method of claim 15 further comprising the step of moving said set of wheels closer to a front end of said trailer before said pivoting step.

17. The method of claim 1 wherein said module includes a driver-side side wall, a passenger-side side wall parallel to and laterally spaced from said driver-side side wall, a bottom support structure extending between said side walls and shaped to support said vehicles thereon, and a roof spaced from said bottom support structure such that said roof and said bottom support structure closely receive a single layer of vehicles therebetween, and wherein said driver-side side wall includes at least one opening, and wherein a front driver-side door of at least one vehicle driven into said module is opened into said opening when a driver exits or enters said at least one vehicle.

18. The method of claim 17 wherein said driver-side side wall includes a plurality of openings, and wherein a front driver-side door of each vehicle driven into said module is opened into said one of said openings when said a driver enters or exits the associated vehicle.

19. The method of claim 17 wherein said bottom support structure is generally flat, and wherein said locating step includes locating said module on said trailer chassis such that said bottom support structure is located on said trailer chassis.

20. A method for transporting vehicles comprising the steps of:
providing a module closely receiving a single layer of vehicles therein;
providing a trailer chassis coupled to a tractor;
locating said module on said trailer chassis;
securing said module to said trailer chassis
transporting said trailer chassis to a desired location; and
driving said vehicles from said module to an external surface while said module

is located on said trailer chassis.

21. A method for transporting vehicles comprising the steps of:

providing a module including a driver-side side wall, a passenger-side side wall parallel to and laterally spaced from said driver-side side wall, a bottom support structure extending between said side walls and supporting a single layer of vehicles located thereon,
5 and a roof spaced from said bottom support structure such that said roof and said bottom support structure closely receive said single layer of vehicles therebetween;

providing a trailer chassis coupled to a tractor;

locating said module on said trailer chassis;

securing said module to said trailer chassis;

10 transporting said trailer chassis to a desired location;

uncoupling said module from said trailer chassis; and

locating said module on a carrier.

22. A method for transporting at least one vehicle comprising the steps of:

providing a module shaped to receive at least one vehicle therein;

providing a trailer chassis coupled to a tractor, said trailer chassis and said tractor being located on an external surface;

5 locating said module on said trailer chassis;

coupling said module to said trailer chassis;

pivoting said trailer chassis in a first direction such that a loading side of said module is moved closer to said external surface;

driving at least one vehicle from said external surface into said module;

10 pivoting said trailer chassis in a second direction such that said trailer chassis extends generally horizontally; and

transporting said trailer chassis to a desired location.

23. The method of claim 22 further comprising the steps of uncoupling said module from said trailer chassis, removing said module from said trailer chassis, and placing said module on a carrier.

24. The method of claim 22 further comprising the step of unloading said at least one vehicle by driving said vehicle from said module onto an external surface at said desired location.

25. A tractor/trailer chassis combination comprising:
a tractor;
a trailer chassis coupled to said tractor, said trailer chassis including a frame and least one set of wheels that is movable along at least part of the length of said trailer; and
lifting means coupled to said tractor for pivoting said trailer chassis about said at least one set of wheels.

26. The combination of claim 25 wherein said lifting means couples said trailer chassis to said tractor.

27. The combination of claim 26 wherein said lifting means is a fifth wheel.

28. The combination of claim 27 wherein said fifth wheel is a hydraulic fifth wheel.

29. The combination of claim 25 further comprising a fifth wheel which couples said tractor and said trailer.

30. The combination of claim 25 further comprising a module removably coupled to

said trailer chassis, said module being shaped to receive a single layer of vehicles therein.

31. The combination of claim 25 wherein said wheels are movable between a pivot position and a operating position, wherein said wheel are located rearwardly of said pivot position, and wherein said trailer includes at least one storage box for storing a ramp therein.

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C1- 32. A tractor/trailer chassis combination comprising:

a tractor;

a trailer chassis including a frame and least one set of wheels that is movable along at least part of the length of said trailer; and

a hydraulic fifth wheel coupling said trailer chassis to said tractor and for lifting a forward end of said trailer chassis to thereby pivot said trailer about said set of wheels.

33. A method for manipulating a tractor/trailer chassis combination comprising the steps of:

providing a tractor/trailer chassis combination including a tractor, a trailer chassis coupled to said tractor, said trailer chassis including a frame and least one set of wheels, and lifting means coupled to said tractor;

moving said set of wheels relative to said frame from an operating position to a pivot position, wherein said wheels are located forwardly of said operating position; and

operating said lifting means to pivot said trailer chassis about said set of wheels.

34. The method of claim 33 wherein said trailer chassis is located on a support surface, and wherein said operating step includes lifting a front end of said trailer to pivot said trailer chassis such that a rear end of said trailer chassis is located closer to said support surface.

35. The method of claim 34 further comprising the step of attaching a ramp to one of said trailer chassis or said module and driving at least one vehicle from said support surface and into said module.

36. The method of claim 35 further comprising the steps of operating said lifting means to lower said front end of said trailer to pivot said trailer chassis about said set of wheels such that a rear end of said trailer chassis is located further from said support surface, and moving said wheels from said pivot position to said operating position.

37. The method of claim 36 further comprising the step of transporting said module to a desired location, uncoupling said loaded module from said trailer chassis and locating said module on a carrier.

38. The method of claim 36 further comprising the step of unloading said at least one vehicle from said module by driving said at least one vehicle out of said module.

39. The method of claim 33 further comprising the step of locating a module on said trailer chassis after said providing step, said module being sized and shaped to receive at least one vehicle therein.

40. A module for receiving motorized vehicles for transportation comprising:
a driver-side side wall;
a passenger-side side wall parallel to and laterally spaced from said driver-side side wall;
wherein at least one of said side walls includes a plurality of openings;
a plurality of doors, each door covering one of said openings to protect the contents of said module;

a bottom support structure extending between said side walls; and
a roof spaced from said bottom support structure to closely receive a single layer of
vehicles therebetween.

41. The module of claim 40 wherein each opening includes a corresponding door such that said module can be fully enclosed when said doors are closed.

42. The module of claim 40 wherein at least one of said openings is a lower opening located adjacent said bottom support structure to provide access to a wheel of a vehicle received in said module.

43. The module of claim 40 wherein at least one of said openings is a door receiving opening that is sized and located to receive a door of a vehicle received in said module therethrough.

44. The module of claim 40 wherein said bottom support structure has a shape complementary to a shape of said roof so that said module is stackable such that said module can be stacked on top of other modules and other modules can be stacked on top of said module.

45. The module of claim 40 wherein said module having a length such that said module can closely receive a predetermined number of vehicles therein, and wherein at least one of said side walls includes a set of door receiving openings, each opening corresponding to a door of one of said predetermined number of vehicles such that a door of each vehicle can be opened into a corresponding door receiving opening.

46. The module of claim 40 wherein each side wall is generally solid and continuous

such that said side walls protect the contents of said module when said doors are closed.

47. The module of claim 40 wherein said module includes a pair of end openings to receive vehicles therethrough, and wherein said module includes an end door mounted adjacent to one of said end openings to cover the corresponding end opening.

48. The module of claim 47 wherein said module includes an auxiliary end door for covering the other one of said end openings.

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